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ABSTRACT OF THE DISCLOSURE

A method and an apparatus for reading passive tags affixed to objects to be identified and tracked by a radio frequency identification system are disclosed. An interrogating station sends radio-frequency inquiry signals toward the passive tags through an antenna array and receives the response signals from the tags through the same array. Electronic circuitry for processing such response signals has a phase conjugator submitting each received signal to phase conjugation, and the phase-conjugated signals are back transmitted to the passive tags. Retrodirectivity of the antenna array obtained through the phase conjugation allows a precise object identification and tracking also at relatively long distances.